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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,142	12/21/2000	Yoichi Yamada	107300	7514

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EXAMINER

PEUGH, BRIAN R

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,142

Applicant(s)

YAMADA, YOICHI

Examiner

Brian R. Peugh

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/12/03 & 1/15/04.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,5,7-10,12-16 and 18-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is in response to applicant's communication filed December 4, 2003 and January 15, 2004 in response to PTO Office Action dated July 13, 2001. The applicant's remarks and amendment to the specification and/or claims were considered with the results that follow.

Claims 1-20 have been presented for examination in this application. In response to the last Office Action, claims 6, 7, 12, 14, and 19 have been amended.

Claim Objections

Claim 6 is objected to because of the following informalities:

Regarding Claim 6, line 3: Replace "the area" with --an area of the memory--.

Appropriate correction is required.

Drawings

The drawings are objected to because Figure 13 requires a –Prior Art— tag in order to correspond the material of Figure 13 with that found in the “Background of Art” section of Applicant’s Specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Oath/Declaration

The Declaration filed January 15, 2004 has been received but is insufficient in overcoming the prior art rejections disclosed below. The personal interview of December 18, 2003, which included the Examiner and Mr. Woodall, included discussion regarding the inclusion of an affidavit in an attempt to remove the prior art rejections set forth in the Office Action of August 15, 2003. Mr. Woodall indicated that the use of the term “conventional”, found on page 1 of Applicant’s Specification, may have been mis-translated from the original foreign priority application. Further, the Examiner and Mr. Woodall discussed that an affidavit with a certified translation from the translator, indicating that a translation error had occurred, might be sufficient to overcome the prior art rejections. Although the affidavit filed January 15, 2004 did not conform to that which was discussed in the interview, the Examiner consulted a Special Projects Examiner for further guidance. The Special Projects Examiner indicated that the affidavit, on its own, would not be sufficient to overcome the prior art rejection, and that

an affidavit in accordance with the guidelines discussed in the interview may overcome the prior art rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 5, and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's Admitted Prior Art (AAPA).

Regarding claim 1, AAPA teaches a semiconductor integrated circuit (100) connected to an external processor (200) Figure 13). Built-in memory (103) stores data as a cache memory for the processor (page 1, lines 21-23). Terminal (104) couples the processor to the built-in memory. ID-Generation circuit (101) generates production information (ID) about the semiconductor IC (page 1, lines 23-26). The ID is written into the built-in memory when resetting the IC, where the storing upon resetting constitutes that the operation occurs before normal operation has started (page 2, lines 7-12). Although a write circuit as claimed is not explicitly recited, the AAPA recites "storing the ID" in the built-in memory which inherently requires some command circuitry for writing the ID into the built-in memory.

Regarding claim 2, AAPA teaches that the ID is written into the built-in memory upon an IC system reset, as disclosed above (page 2, lines 7-9).

Regarding claim 5, AAPA teaches that the memory is a cache memory for use by the processor, as disclosed above (page 1, lines 21-23).

Regarding claim 7, AAPA teaches that the production information could include a production history or manufacturer's number (page 1, lines 23-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA as applied to claims 1, 2, 5, and 7 above, and further in view of Handy.

Regarding claim 8, AAPA recites a built-in memory found on the integrated circuit and the processor found external to the integrated circuit (Fig. 1). The difference between the claimed subject matter and that of AAPA, disclosed supra, is that the claim recites that the semiconductor IC is connected to a combination of an external memory and processor externally. Handy teaches L1 and L2 caches tied to the processor for storing data as directed by the processor (page 89, para. 4 – page 90, para. 2). Therefore it would have been obvious to one of ordinary skill in the art having the

teachings of AAPA and Handy at the time the invention was made to modify the memory system of AAPA to include the external memory with the processor into the caching system like that of Handy, because then a small high-speed memory could be implemented for quicker data retrieval by the processor as taught by Handy.

Regarding claim 9, AAPA teaches that the ID is written into the built-in memory upon an IC system reset, as disclosed above (page 2, lines 7-9).

Regarding claim 13, AAPA teaches that the production information could include a production history or manufacturer's number (page 1, lines 23-25).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Handy, as applied to claim 8 above, and further in view of Ogura (US# 6,181,629).

Regarding claim 10, AAPA teaches storing the ID information when resetting the integrated circuit (page 2, lines 7-9). What AAPA fails to recite is what device causes the (resetting) command to occur. Ogura teaches a semiconductor memory device that includes a (reset) signal under the direction of the CPU (col. 3, lines 61-63). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of AAPA, Handy and Ogura at the time the invention was made to modify the processing system of AAPA and Handy to include the CPU resetting command/signal of Ogura, because then one circuit (CPU) could be responsible for multiple tasks without wasting space on the I.C. with multiple specialized command circuits and thus reduce the manufacturing costs of the I.C.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Handy, as applied to claim 8 above, and further in view of Runaldue et al. (US# 6,178,483).

The difference between the claimed subject matter and that of AAPA, disclosed supra, is that the claims recite a register which receives address data related to the location in the memory to which data is to be stored. Runaldue et al. teaches a register for storing an address for a write operation, where the register receives the address from a host and stores an address related to the location in the SDRAM memory where the data is to be written (col. 11, lines 15-21). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of AAPA, Handy, and Runaldue et al. at the time the invention was made to modify the memory system of AAPA and Handy to include the address storing register of Runaldue et al., because then a register, a high-speed memory device, could receive and supply the write address to the system in such a way as to reduce processing time, as taught by Runaldue et al.

Claims 14, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Ayukawa et al. (US# 6,381,671).

Regarding claim 14, AAPA teaches a semiconductor integrated circuit (100) connected to an external processor (200) Figure 13). Built-in memory (103) stores data as a cache memory for the processor (page 1, lines 21-23). Terminal (104) couples the processor to the built-in memory. ID-Generation circuit (101) generates production information (ID) about the semiconductor IC (page 1, lines 23-26). The ID is written into

the built-in memory when resetting the IC, where the storing upon resetting constitutes that the operation occurs before normal operation has started (page 2, lines 7-12).

Although a write circuit as claimed is not explicitly recited, the AAPA recites "storing the ID" in the built-in memory which inherently requires some command circuitry for writing the ID into the built-in memory.

The difference between the claimed subject matter and that of AAPA, disclosed *supra*, is that the claim recites that the integrated circuit includes a built-in processor. Ayukawa et al. teaches a semiconductor integrated circuit that includes at least a CPU and a memory within a single chip (col. 1, lines 13-31). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of AAPA and Ayukawa et al. at the time the invention was made to modify the memory system of AAPA to include the internal memory with processor like that of Ayukawa et al., because then the number of bus bits could be increased between the CPU and memory in order to enhance data throughput between the memory and CPU logic circuit, as taught by Ayukawa et al.

Regarding claim 15, AAPA teaches that the ID is written into the built-in memory upon an IC system reset, as disclosed above (page 2, lines 7-9).

Regarding claim 18, AAPA teaches that the memory is a cache memory for use by the processor, as disclosed above (page 1, lines 21-23).

Regarding claim 20, AAPA teaches that the production information could include a production history or manufacturer's number (page 1, lines 23-25).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Ayukawa et al. (US# 6,381,671), as applied to claims 14, 15, 18, and 20 above, and further in view of Ogura (US# 6,181,629).

Regarding claim 16, AAPA teaches storing the ID information when resetting the integrated circuit (page 2, lines 7-9). What AAPA fails to recite is what device causes the (resetting) command to occur. Ogura teaches a semiconductor memory device that includes a (reset) signal under the direction of the CPU (col. 3, lines 61-63). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of AAPA, Ayukawa et al., and Ogura at the time the invention was made to modify the processing system of AAPA and Ayukawa et al. to include the CPU resetting command/signal of Ogura, because then one circuit (CPU) could be responsible for multiple tasks without wasting space on the I.C. with multiple specialized command circuits and thus reduce the manufacturing costs of the I.C.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Ayukawa et al. (US# 6,381,671), as applied to claims 14, 15, 18, and 20 above, and further in view of Runaldue et al. (US# 6,178,483).

The difference between the claimed subject matter and that of AAPA, disclosed supra, is that the claims recite a register which receives address data related to the location in the memory to which data is to be stored. Runaldue et al. teaches a register for storing an address for a write operation, where the register receives the address from a host and stores an address related to the location in the SDRAM memory were

the data is to be written (col. 11, lines 15-21). Therefore it would have been obvious to one of ordinary skill in the art having the teachings of AAPA, Ayukawa, and Runaldue et al. at the time the invention was made to modify the memory system of AAPA and Ayukawa et al. to include the address storing register of Runaldue et al., because then a register, a high-speed memory device, could receive and supply the write address to the system in such a way as to reduce processing time, as taught by Runaldue et al.

Response to Arguments

Applicant's arguments filed November 12, 2003 have been fully considered but they are not persuasive. The use of AAPA as prior art has been included according to the comments found in the "Oath/Declaration" section. According to WEBSTER'S Ninth New Collegiate Dictionary, © 1990, conventional is defined as "...lacking originality or individuality...ordinary, commonplace...of traditional design". The secondary references have been included to expand upon the teachings of AAPA, as is necessary for the 35 U.S.C. 103 rejections, disclosed supra.

Allowable Subject Matter

Claims 3, 4, 6, 11, and 17 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Peugh whose telephone number is 703-306-5843. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Friday's from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks, can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

BRP
DS/BRP

February 2, 2004



Donald Sparks
Supervisory Patent Examiner
Art Unit 2187